



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/534,081

06/13/2005

Kohji Fukatsu

66530(46590)

8962

21874

7590

04/26/2011

EDWARDS ANGELL PALMER & DODGE LLP

P.O. BOX 55874

BOSTON, MA 02205

EXAMINER

CORNET, JEAN P

ART UNIT

PAPER NUMBER

1628

MAIL DATE

DELIVERY MODE

04/26/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

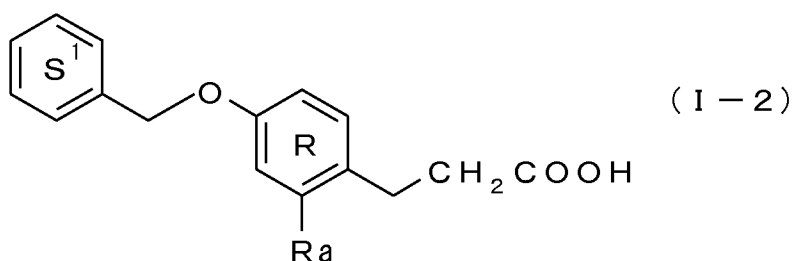
The time period for reply, if any, is set in the attached communication.

Art Unit: 1628

**DETAILED ACTION**

This supplemental action allows for correcting minor errors in the Examiner amendment of 01/31/2011. These minor errors are demonstrated with “~~strikethrough~~” (i.e. delete) and “underline” represents the changes. :

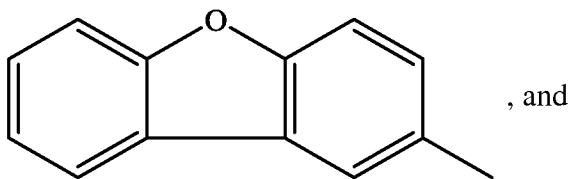
13. (amended) A compound represented by the formula



wherein ring ~~S1~~ S<sup>1</sup> is a benzene ring having a substituent represented by the formula: R<sup>11</sup>-E<sup>2</sup>-, wherein

R<sup>11</sup> is a phenyl group, an indanyl group or a naphthyl group, each optionally having substituent(s), and

E<sup>2</sup> is a bond or a spacer, and the spacer is represented by ~~-(CH<sub>2</sub>)<sub>m</sub>-~~<sup>1</sup> ~~W<sup>1</sup>~~ ~~-(CH<sub>2</sub>)<sub>m</sub>-~~<sup>2</sup> ~~-(CH<sub>2</sub>)<sub>m</sub>-~~<sup>1</sup> ~~W<sup>1</sup>~~ ~~-(CH<sub>2</sub>)<sub>m</sub>-~~<sup>2</sup>, wherein m<sup>1</sup> and m<sup>2</sup> are each an integer of 0 to 3, W<sup>1</sup> is -O-, ~~N(R<sup>2</sup>)~~-, ~~N(R<sup>2</sup>)~~-, -S-, -CO- or -CO-N(R<sup>3</sup>)-, and R<sup>2</sup> and R<sup>3</sup> are each a hydrogen atom or a C<sub>1-6</sub> alkyl group, or R<sup>11</sup> forms, together with E<sup>2</sup> and ring S<sup>1</sup>,

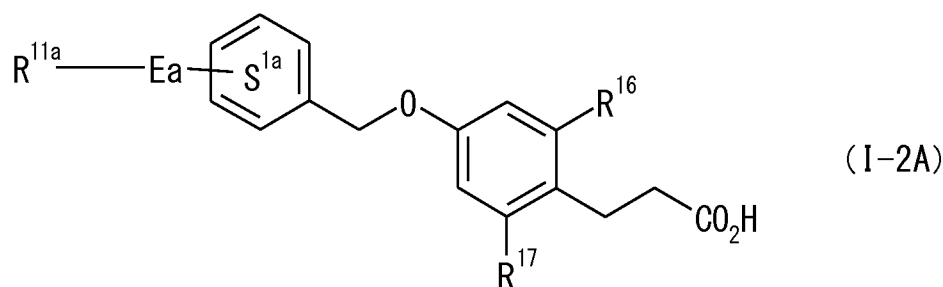


ring S<sup>1</sup> optionally has additional substituent(s) in addition to R<sup>11</sup>-E<sup>2</sup>-, said additional substituent(s) selected from the group consisting of an optionally substituted C<sub>1-6</sub> alkyl group, an optionally substituted C<sub>1-6</sub> alkoxy group, a halogen atom and a C<sub>7-16</sub> aralkyloxy group; ring R is a phenylene group optionally having substituent(s) selected from the group consisting of a C<sub>1-6</sub> alkyl group, a halogen atom, a C<sub>1-6</sub> alkoxy group and a hydroxy group; and

Art Unit: 1628

Ra is a hydrogen atom, a halogen atom, a C<sub>1-6</sub> alkyl group or a ~~C<sub>1-6</sub> alkoxy group~~ C<sub>1-6</sub> alkoxy group; or a salt thereof.

16. (amended) A compound represented by the formula



wherein R<sup>11a</sup> is a phenyl group having 1 or 2 substituents, Ea is a bond, an oxygen atom or an optionally substituted methylene, ring S<sup>1a</sup> is a benzene ring optionally having substituent(s) selected from an optionally substituted C<sub>1-6</sub> alkyl group, an optionally substituted C<sub>1-6</sub> alkoxy group and a halogen atom, and R<sup>16</sup> and R<sup>17</sup> are the same or different and each is a hydrogen atom, a halogen atom, a C<sub>1-6</sub> alkyl group or a C<sub>1-6</sub> alkoxy group; or a salt thereof.

22. (amended) The compound or salt of claim 13, wherein the optional substituent of ring S<sup>1</sup> is a C<sub>1-6</sub> alkyl group.

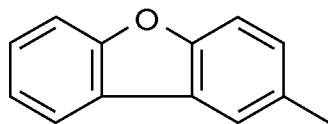
23.(amended) The compound or salt of claim 13, wherein ~~R<sup>11</sup>~~ R<sup>11</sup> is a phenyl group or an indanyl group, each optionally having substituent(s) selected from the group consisting of a halogen atom, a nitro, a carboxy, an optionally halogenated C<sub>1-6</sub> alkyl, a hydroxy- C<sub>1-6</sub> alkyl, a carboxy- C<sub>1-6</sub> alkyl-carbonylamino- C<sub>1-6</sub> alkyl, an optionally halogenated C<sub>1-6</sub> alkoxy, a C<sub>6-14</sub> aryl, a C<sub>6-14</sub> aryloxy and a C<sub>7-16</sub> aralkyloxy,

E<sup>2</sup> is a bond, -θ-, -O-, -CH<sub>2</sub>-O-, -CO-, -CONH-, -N(CH<sub>3</sub>)CH<sub>2</sub>-, -S-CH<sub>2</sub>- or -C=C-,

ring S<sup>1</sup> optionally has an additional substituent which is a C<sub>1-6</sub> alkyl group, or

R<sup>11</sup> ~~forms,~~ forms, together with E<sup>2</sup> and ring S<sup>1</sup>,

Art Unit: 1628



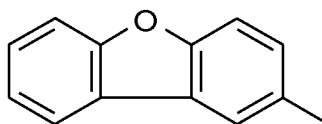
ring R is a phenylene group optionally further having a C<sub>1-6</sub> alkyl group, and  
~~R~~ R<sub>a</sub> is a hydrogen atom.

39. (amended) The compound or salt of claim 13, wherein R<sup>11</sup> is a phenyl group or an indanyl group, each optionally having substituent(s) selected from the group consisting of a halogen atom, a nitro, a carboxy, an optionally halogenated ~~C<sub>1-6</sub> alkyl~~ C<sub>1-6</sub> alkyl, a hydroxy-C<sub>1-6</sub> alkyl, a carboxy-C<sub>1-6</sub> alkyl-carbonylamino-C<sub>1-6</sub> alkyl, an optionally halogenated C<sub>1-6</sub> alkoxy, a C<sub>6-14</sub> aryl, a C<sub>6-14</sub> aryloxy and a C<sub>7-16</sub> aralkyloxy;

E<sup>2</sup> is a bond, -O-, or -CH<sub>2</sub>-O;

ring S<sup>1</sup> optionally has a C<sub>1-6</sub> alkyl group;

or R<sup>11</sup> forms, together with E<sup>2</sup> and ring S<sup>1</sup>,



~~Ring~~ ring R is a phenylene group optionally having a C<sub>1-6</sub> alkyl group; and  
~~R<sub>a</sub>~~ R<sub>a</sub> is a hydrogen atom.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEAN CORNET whose telephone number is (571)270-7669. The examiner can normally be reached on Monday-Thursday 7.00am-5.30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brandon Fetterolf can be reached on 571-272-2919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1628

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JC/

/Timothy P Thomas/  
Primary Examiner, Art Unit 1628